

SN 09/920,687
Page 4

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A photodetector for a laser gyro producing a birefringent pattern having a predetermined pitch, comprising:
 - a) a pair of diodes formed in common on a shared die having a major surface; and
 - b) a mask formed on the major surface, the mask being formed with parallel bars of an opaque material with gaps there between, the pitch of the parallel bars matching the pitch of the birefringent pattern.
2. (Cancelled)
3. (Currently Amended) The photodetector of claim 1, wherein:
 - a) the parallel bars are formed in two groups, a first group positioned to cover the first diode and a second group positioned to cover the second diode, each group having spaced bars having a distal end, the distal ends of one group being positioned adjacent to a gap between bars of the other group.
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Currently amended) A method of making a masked photodetector for a laser gyro producing a birefringent pattern having a predetermined pitch, comprising:
 - a) forming a die with a major surface with a diode formed therein;
 - b) forming a photomask on the major surface to cover a portion of the diode; and

SN 09/920,687
Page 5

c) forming the photomask to have a plurality of parallel bars of optically opaque material, the pitch of the parallel bars matching the pitch of the birefringent pattern.

8. (Presently Amended) The method of claim 7, wherein the bars are formed with a gap between bars, the bars and gap having a width.

9. (Original) The method of claim 8, further comprising the step of:

a) forming the bars and gap to have a width such that a ratio of the width of a gap to the width of a single bar is between 0.8182 and 1.2222.

10. (Original) The method of claim 9, further comprising the step of:

a) forming the bars from a blue chrome material.

11. (Cancelled)

12. (Cancelled)

13. (Presently Amended) A ring laser gyro readout detector for a ring laser gyro that produces a birefringent pattern, comprising:

a) a first photodiode

b) a mask formed in the photodiode for excluding certain wavelengths of light from reaching the photodiode; and

c) a plurality of substantially planar, spaced parallel bars formed on the photodiode, the spacing being selected to match the pitch of the birefringent pattern.

14. (Cancelled)

15. (Presently Amended) The ring laser gyro readout of claim 13, further comprising a second photodiode.

SN 09/920,687
Page 6

16. (Original) The ring laser gyro readout of claim 15 wherein the first and second diodes are formed side by side on a die with a central gap therebetween.

17. (Original) The ring laser gyro readout of claim 16, wherein the mask covers both diodes.

18. (Original) The ring laser gyro readout of claim 17, wherein the bars of the mask are formed in first and second groups, the first group being positioned adjacent to the first photodiode, the second group being positioned adjacent to the second photodiode.

19. (Original) The ring laser gyro readout of claim 18, wherein the first and second groups are connected by a mask edge and wherein the bars of each group have a distal end adjacent to the central gap.

20. (Original) The ring laser gyro readout of claim 19, wherein the distal end of the bars of the first group are positioned to be adjacent to spaces between bars of the second group.